

Meeting Summary:

**Biomass Research & Development
Technical Advisory Committee and
Joint Meeting with Biomass Research and
Development Board**

November 27-28, 2007

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I. Purpose

On November 27-28, 2007, the Biomass Research and Development Technical Advisory Committee (Committee) held a quarterly meeting, the fourth of the 2007 calendar year. The purpose of the meeting was to present its fiscal year 2007 annual recommendations to the Biomass R&D Board as well as receive an update from the Departments of Agriculture and Energy on agency activities related to the National Biomass Initiatives. The Committee also heard presentations from EPA on its greenhouse gas rulemaking and from the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy, Hydrogen Program on its activities. Lou Honary from the University of Northern Iowa presented on biobased lubricants to the Committee. The two-day meeting was held at the Westin Arlington Gateway hotel in Arlington, Virginia.

Background: The Committee was established by the Biomass R&D Act of 2000 (Biomass Act) which was revised in the Energy Policy Act of 2005. The Biomass R&D Board was established under the same act to conduct Federal strategic planning and coordinate activities across the Federal sector to promote the use of biobased fuels, power and products. The Committee is charged to advise the Secretary of Energy and the Secretary of Agriculture on the direction of biomass research and evaluate and perform strategic planning.

A list of attendees is provided in Attachment A. The agenda is provided in Attachment B. Meeting presentations are provided in Attachment C.

II. U.S. Department of Energy: Overview

The U.S. Department of Energy (DOE)'s Designated Federal Officer for the Biomass R&D Technical Advisory Committee, Valri Lightner, gave an update on the Biomass Program's activities since the September meeting, primarily pertaining to strategic planning, peer review and solicitations. These activities are highlighted below.

A. Strategic Planning

The primary focus for the Biomass Program is cost-shared R&D technologies to advance cellulosic ethanol in addition to alternative light-duty and diesel replacement fuels. The Biomass Program is currently undergoing a three-step strategic planning process. Steps are to: define goals and research activities required to achieve them; outline the schedule activities, milestones and decision points; and estimate annual funding requirement to accomplish each subtask through 2017. Cost estimates will be internal to DOE, however DOE will seek stakeholder input on the activities, milestones and decision points, likely as an update to the multi-year program plan.

B. DOE Biomass Program Peer Review

The Biomass Program Peer Review was held on November 15 and 16 in Baltimore, Maryland. It is a transparent, non-biased evaluation of technical, scientific, and business

aspects of the Program, project results, and management. A public report with comments will be available in January 2008. A summary of Biomass Program plans for responding to comments will also be available. The Biomass Program is seeking input on program direction.

The Biomass Program platforms that were reviewed are:

- Feedstocks
- Biochemical Conversion
- Thermochemical Conversion
- Integrated Biorefineries
- Distribution and End-Use Infrastructure
- Biodiesel and Other Projects

Distribution and End-Use Infrastructure includes distribution of biofuels from the plant to the vehicle. The Distribution and End-Use Infrastructure Platform coordinates with the Vehicle Technologies Program at the Department of Energy on activities involving intermediate blends of ethanol as well as with the Department of Transportation on other infrastructure issues such as stress corrosion cracking in pipelines.

Comments from members of the Technical Advisory Committee on the Biomass Program Multi-Year Program Plan should be submitted by mid-December.

The Department of Energy, Office of Science also holds a program review. Valri Lightner will provide more details on this review to the Committee.

A summary of some of the feedback and general comments received at the peer review are provided in Attachment C in the presentation given by Valri Lightner.

C. Solicitations

The Department of Energy announced \$1 billion in FY 2007 supporting biomass R&D. Lou Honary asked if there will be another \$1 billion for FY 2008. There will be smaller solicitations in 2008.

Of the \$1 billion announced, \$385 million is planned over the next four to five years for six integrated biorefineries which are expected to produce more than 130 million gallons per year of cellulosic ethanol. The six projects are being negotiated using a two-phase approach to lower the risk to both selectees and government. Phase 1 includes design refinements, permitting, National Environmental Protection Act (NEPA) compliance and risk mitigation and is awarded as a cooperative agreement. Phase 2 allows for construction, commissioning and operation and is awarded as a Technology Investment Agreement (TIA). Abengoa, Blue Fire and poet have been awarded phase 1 cooperative agreements. Range Fuels has been awarded a phase 2 TIA, the first in DOE history. More information on TIAs can be found at http://www.management.energy.gov/policy_guidance/715.htm. More information on the co-products of these biorefineries are will be communicated to the Committee. Power is one co-

product of the biorefineries. All six of these projects are required to be evaluated by an independent consultant to assess their risk. Additionally, they are required to address the findings of the assessment by developing a risk mitigation plan. While the details of the risk assessments are proprietary, in general, the risk assessments recommended more pilot scale development. Some projects were planning to build commercial scale facilities without a pilot.

All 2007 solicitations are closed and under review. They include:

- up to \$200 million to develop small-scale (ten percent of commercial scale) cellulosic biorefineries over the next four to five years producing liquid transportation fuels such as ethanol and bio-based chemicals and bioproducts;
- \$38 million to develop “next generation” enzymes;
- \$9 million for thermochemical biofuels development; and
- \$14 million of USDA and \$4 million of DOE funding towards the USDA/DOE joint solicitation (to be discussed in further detail by Bill Hagy).

\$375 million was awarded by DOE to three Bioenergy Research Centers to accelerate basic research in the development of cellulosic ethanol and other biofuels. The Office of Science will present on the Bioenergy Centers to the Committee at the February 2008 meeting.

III. U.S. Department of Agriculture: Overview

Bill Hagy, Deputy Administrator of Business Programs in Rural Development at the Department of Agriculture, provided an update to the Committee on USDA biofuels efforts. The presentation focused on the FY2007 joint USDA-DOE solicitation and the Farm Bill.

A. Joint Solicitation

The Joint Solicitation, which opened in June 2007, was for \$18 million (\$14 million from USDA and \$4 million from DOE). The deadline for full applications was November 16, 2007 and the full application merit review will be January 8, 2008 in Golden, Colorado. Selections are expected in February. The 30 reviewers of the 141 applications will all be from outside the Departments. DOE will have the lead for the 2008 solicitation.

B. Farm Bill

The House version of the Farm Bill provides for biorefineries/biofuel products plants not to exceed 90 percent of loan guarantee. The House version repeals TITLE III of Agriculture Risk Protection Act of 2000. The House version amends the definition of bioenergy to include the following:

- heat and power at biofuel plant
- biomass gasification
- hydrogen derived from cellulosic commodities
- renewable diesel.

The House version includes Competitive R&D programs to encourage forest biomass. It authorizes the creation of the Energy Council, naming the Chief Economist and the Rural Development Under Secretary as co-chairs

The Senate version of the Farm Bill amends the definition of renewable energy to include energy derived from:

- Ocean (including tidal, wave, current, and thermal)
- Hydro Power.

The Rural Energy for America Program under the Senate version provides:

- Grants for energy audits
- Financial Assistance-Energy Efficiency/Renewable Energy System.

The Senate version moves statutory authority of the Biomass R&D Act of 2000 to the Farm Bill.

IV. Green House Gas Rulemaking

Karl Simon from the Environmental Protection Agency presented on the Green House Gas Rulemaking. The Environmental Protection Agency is working on the rulemaking as a result of: the President's 20 in 10 goal; a Supreme court decision that ruled the EPA must take action under the Clean Air Act regarding green house gas emissions from motor vehicles (Mass. V. EPA); and a May 14, 2007 Executive Order.

The Environmental Protection Agency is looking at three major areas of work for its green house gas rule:

- Endangerment finding
- Vehicle regulations
- Fuel regulations.

The proposal is to be completed by the end of calendar year 2007 and the final rule is set to be complete by the end of calendar year 2008. The Environmental Protection Agency has been coordinating with other agencies such as the Departments of Energy, Agriculture and Transportation, National Highway Traffic Safety Administration (NHTSA) and the Office of Management and Budget (OMB).

The Environmental Protection Agency will receive input from DOE, USDA and industry before picking a primary volume scenario for notice of proposed rulemaking (NPRM) analysis. The EPA made the best estimate based on this input for each of the primary fuel options.

Mid-level blends of ethanol are being investigated for additional market penetration of ethanol. Testing includes emissions performance and durability as the two main criteria.

The rulemaking does not only include gasoline displacement. It is for all transportation fuels. The President's 20 in 10 goal is the main objective of the rulemaking.

It was brought up that the Technical Advisory Committee reviews documents if the EPA would like the rule to be reviewed. Mr. Simon responded that EPA will get hundreds of thousands of comments and welcomes the Committee's input. The EPA will have a two month comment period. Mr. Simon offered to return to a future Committee meeting to present an update on the rulemaking.

The EPA has its orders on what is covered in the current rulemaking. It is aware that Congress may pass a greatly expanded renewable fuel standard. Additionally, assessment of the impact of petroleum is being discussed in the government, but it is not certain if it will be in the rule. The issue of bio-based products is out of scope of the current rulemaking. The EPA has been directed to look at transportation fuels. EPA does not do a cost-benefit analysis. The agency will look at what is feasible within the timeframe and give an assessment.

V. Biobased Lubricants

Lou Honary from the National Ag-Based Lubricants Center at the University of Northern Iowa provided a brief overview and history of the Center and its work. From 2006 to 2011 the Center is planning a transition to a National Center and Continuation of Market Advocacy. Part of that plan includes the following:

- Expanded scope to include all lubricants;
- Applied biolubricant research and field testing;
- Testing and technical support resource for the biobased and biofuels industry;
- Participation in standard-setting committees; and
- Continued publications and presentations.

Mr. Honary described market opportunities for bio-based lubricants and also government (state and federal) efforts in the industry. Biobased products are being recognized as critical to the U.S. economy, national security, and environment.

The latter segment of the presentation focused on commercialization of biobased lubricants such as soy grease. Mr. Honary spoke most specifically about ELM USA, a manufacturer of biobased and biodegradable lubricants and greases, and its experiences bringing soy grease to market. The increase in the price of petroleum due to increased worldwide demand offers opportunity for investment in biobased products. The price of petroleum grease used by railroads has gone up (it has traditionally been done as a service), which makes soy grease a less expensive choice for the railroad industry.

VI. Current State of the Industry

Bob Dinneen of the Renewable Fuels Association provided an update on the ethanol industry including an update on the U.S. ethanol market both supply and demand and highlighted capacity under construction. Ethanol demand is increasing at 20 percent per year. Dinneen stated that the following components are needed for continued expansion:

- Favorable fuel regulations
- Supply
- Infrastructure
- Positive economics.

Mr. Dinneen discussed the Minnesota-RFA testing of E20. The three major components of the test include:

- Materials Compatibility
- Fleet Demonstration
- Emissions Testing.

Regarding increased ethanol production and transport on rail, in certain areas rail lines will need to be added. 35 billion gallons of ethanol would need 14 thousand unit trains of ethanol if all the ethanol is shipped on unit trains. Dinneen pointed out that this constitutes only three percent of the rail capacity. In some areas of the country it will be tight, but Dinneen said the market place will have time to adjust. If production is closer to the market then additional train capacity may not be necessary.

Some cellulosic plants are being constructed with private money, such as Range Fuels (which also received funding from DOE). Some plants are moving forward with no government assistance, however they have not broken ground. Some plants are being built where there is a local feedstock supply and others are not.

VII. Preparation for FY 2007 Recommendations to the Secretaries

The Committee determined that it would have approximately thirty minutes of the hour meeting with the Biomass R&D Board to present the FY 2007 Recommendations to the Secretaries. Rather than use that time to repeat the recommendations that the Board has already seen, the time would be better used focusing on a few key points that the Committee views as critical areas of the recommendations.

The Committee agreed to prepare a shortened presentation summarizing the main points from the FY 2007 Recommendations to the Secretaries rather than an unplanned discussion.

VIII. Hydrogen Program Activities

Mark Paster from the DOE Hydrogen Program presented on the program's activities and coordination with the Biomass Program. Mr. Paster discussed the Hydrogen Fuel Initiative (January 2003), the Advanced Energy Initiative (February 2006) and the 20 in 10 Initiative (January 2007). He presented the benefit of hydrogen to reducing green house gas emissions and petroleum use and the technological, economic and institutional barriers to deploying hydrogen technologies.

Paster discussed the international and domestic partnerships of the Hydrogen Program. Related to hydrogen from biomass. Paster presented the key issues of feedstock cost, technology improvements and infrastructure. Biomass-to-hydrogen research and development activities include:

- NREL: Pilot/Bench Scale integrated standard biomass gasification
- Gas Technology Institute (GTI): Integrated gasification, reforming, membrane separation
- United Technologies Research Center (UTRC): biomass hydrolysis and aqueous phase reforming

Collaboration between the Biomass and Hydrogen Programs includes:

- Joint participation in Annual Program Reviews
- Solicitation planning and selections
- Common research participants
- USDA/DOE MOU Ad-Hoc Hydrogen and Fuel Cell Committee
 - Thermochemical Biomass Process Teleseminars
 - Other
- Cost analysis collaboration

Paster mentioned that Los Angeles and New York City metro areas represent the most attractive initial marketplaces for the introduction of hydrogen fuel cell vehicles. This is due to high population density.

IX. Technical Advisory Committee: Subcommittee Updates and Discussion

A. Analysis Subcommittee

The Analysis Subcommittee provided a report of its comments on the agency documents reviewed since the November 2007 meeting. The Analysis Subcommittee informed the meeting attendees that they would like for the Departments and the Biomass R&D Board to use them to examine documents of significance prior to their release. The Analysis Subcommittee expressed its opinion that their review of the documents before publication would be much more valuable than after.

Eric Larson expressed his concern that it is not entirely clear how the input from the Analysis Subcommittee is being used by the Departments. Valri Lightner stated that input from the Analysis Subcommittee could be used on documents that are still ongoing and can be used to make modifications before the final product is issued.

Henson Moore stated that it is the responsibility of the Departments of Energy and Agriculture to bring forth documents that are in progress to be reviewed by the Analysis Subcommittee.

Bob Dinneen said that all the reports reviewed by the Analysis Subcommittee have been government reports from USDA and DOE. He asked if that is because the Subcommittee is only charged with looking at government reports or if they can look at reports from outside of government.

The charge given to the Analysis Subcommittee was to take from the Departments documents that were fundamental and to have a high-level review of documents. USDA has submitted different types of documents such as articles published in journals.

B. Policy Subcommittee

The Policy Subcommittee informed the Committee that they need to reconvene and update their objectives as the subcommittee has not been particularly active since the early part of 2007. The Policy Subcommittee would like more guidance from the government on their role and what they should accomplish in 2008.

Ralph Cavalieri asked if the Policy Subcommittee should work with EPA on their greenhouse gas rulemaking. The rule will be a public document, so comments are welcome, but the EPA will not weigh comments from the Policy Subcommittee any heavier than those from others.

C. Communications Subcommittee

At the September 2007 Committee meeting, the Communications Subcommittee discussed its role of reacting to negative press. The responses, however, cannot come from the Technical Advisory Committee, but rather from the Committee members as individuals. The Communications Subcommittee has been struggling with how to proceed.

The Communications Subcommittee expressed the lack of certainty as to its role. Involvement in public debate or press rebuttals may make the group into an advocacy group, risking its credibility. The Communications Subcommittee questioned whether or not the Committee needed a subcommittee dedicated to communications given that most communication with government will be analytical or policy related.

Henson Moore stated that given that the Committee has not been given much guidance, in 2008 they should focus on what the statute says.

Lou Honary said that he joined the Communications Subcommittee because in the same way that technical barriers need to be identified to move products forward, mis-information needs to be addressed. Mr. Honary thinks the group should look at the barriers from public perception in the same way that technical barriers are viewed. The problem, however, is how the Committee reacts. He believes the Communications Subcommittee is essential to the Committee.

Henson Moore stated that if members of the Committee notice something from their working knowledge to call to the awareness of the government, then they should. There is a fine line between becoming an advocate and calling the attention of the government to something you are an expert on. He suggested that the government would be more inclined to listen to the Committee as technical advisors rather than advocates. Lou Honary brought up the point that the fuel versus feed debate is a political, emotional and technical issue.

Jim Martin said that when the Communications Subcommittee was formed, in the language of the bill it says that in addition to the technical role, the Subcommittee was also to facilitate partnerships. James Barber suggested it would be helpful to have a discussion about policy emphasis and technical emphasis. Valri Lightner said the Subcommittees may need to be restructured as an option going forward.

X. Meeting with the Biomass R&D Board

Members and representatives of members of the Biomass R&D Board (Board) met with the Committee for discussion and presentation of the 2007 Recommendations to the Secretaries. Tom Dorr, Under Secretary for Rural Development at USDA and co-chair of the Board attended along with John Mizroch, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy at DOE representing Andy Karsner, Assistant Secretary of Energy Efficiency and Renewable Energy at DOE and co-chair of the Board. Other participants on behalf of the Biomass R&D Board included Doug Faulkner, Deputy Under Secretary for Rural Development at USDA, Jacques Beaudry-Losique, Biomass Program Manager, at DOE and Donna Perla from EPA.

Tom Dorr and representatives of the Board presented the awards of recognition for participation in the Committee to departing members Jim Barber and John Hickman.

An update on the Biomass R&D Board was provided by Tom Dorr. He stated that the Board decided to meet monthly and had expanded its membership to include not only the Departments of Agriculture and Energy, but also Treasury, Commerce, Defense, Transportation, Interior, the Environmental Protection Agency, the National Science Foundation, the Office of the Federal Environmental Executive, the Office of Management and Budget and the Office of Science and Technology Policy. The Board is also developing a national biofuels action plan focused on the President's 20 in 10 plan.

The seven critical areas of the action plan include feedstocks, conversion, blending, infrastructure, tax and incentives, health and safety, and ownership and finance. These areas are being worked on throughout the agencies.

Regarding the blends area, the Board is identifying and addressing the barriers to the use of ethanol blend levels higher than 10 percent.

Tom Dorr mentioned the Washington International Renewable Energy Conference in March 2008 and encouraged all Committee members to attend. Further information can be found at <http://www.wirec2008.gov>.

John Mizroch, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy of the Department of Energy, communicated the mutual importance of the Board and the Committee to one another. He reiterated that Andy Karsner, co-chair of the Board was unable to attend the meeting at the last minute due to a budget exercise. Mr. Mizroch said that because of Mr. Dorr and Mr. Karsner's leadership, they have created, in a historical amount of time, a senior-level group that meets once a month and is developing a national action plan to respond to the 20 in 10 plan. Mr. Mizroch communicated that there is an extraordinary amount of collaboration among the federal agencies.

Mr. Mizroch stated the accomplishments of DOE for 2007. The Office of Energy Efficiency and Renewable Energy and the Office of Science have committed over a billion dollars for cellulosic ethanol development. The Range Fuels groundbreaking was the first of a commercial scale cellulosic biorefinery in the world. The Department has made a serious commitment to make biofuels happen.

Mr. Mizroch also said that the Departments are working to address the shortcomings in the Committee member nomination process. Additionally, the Board is on its way to have a serious active collaboration with the Committee.

After the representatives from the Biomass R&D Board shared with the Committee, David Anton of Dupont presented the Committee recommendations to the Board. Anton said that what was to be presented does not replace the Roadmap or the written recommendations, but were meant to be major points on which they wished to focus.

Anton said that the Committee recognizes that the Departments understand the challenge the 20 in 10 initiative poses. He said that the Committee believes that the agencies need to study the full scope of the impact of the 20 in 10 goal. Anton said that the Committee came up with four technical aspects. Those four areas are feedstocks, processing and conversion, infrastructure and end-use markets. The feedstock that will be needed to meet the 20 in 10 is 1.6 times all current grain production. The Committee suggests the need for a thorough study of what needs to be done to reach the 20 in 10. The agencies should focus on the economic use of biomass for petroleum (fossil fuel) displacement by support of diversified R&D into process to make new biofuels and bioproducts, feedstock supply, and distribution logistics.

Anton reiterated the Committee's belief that the 20 in 10 is significantly underfunded. The Committee also feels that the trend away from the narrow focus on only 2 biofuels (ethanol and biodiesel) should continue. The Committee would also like to be utilized and engaged as early as possible in the research and planning so that their input can be utilized more effectively. David Anton opened up the presentation to discussion and Henson Moore invited members of the Committee to comment.

Lou Honary brought up that the Committee had significant discussion on bioproducts and that the Departments should look beyond biofuels to make sure that bioproducts are a component. John Mizroch responded that the Departments are absolute proponents of bioproducts and that the Bioenergy Research Centers have a mandate to look at bioproducts as well. Jacques Beaudry-Losique, Biomass Program Manager at the Department of Energy, said that on the Biomass Program website it is clearly stated that there is a budget for bioproducts. There is a lot of work with gasification and biopower and a lot of synergy in the work that is being done in the Biomass Program with bioproducts. Tom Dorr communicated how much the industry had changed and far the technologies have come, however there is a lack of financial institutions that understand how to leverage resources into the industry. Read Smith said that the importance of bioproducts is not to make fuel any less important, but because in order to make the industry more profitable, one of the keys is to have coproducts and bioproducts come out of it.

Ralph Cavalieri of Washington State University brought up the important problem of difficulties in finding sustainable funding for things that are not a federal priority and that there are challenges to keeping up the continued development of biofuels long term.

Mark Maher of General Motors said that some of the Committee would like to be more proactive and work more closely with the agencies and that in order to provide input on Department decisions before they become final, they would like to review Department papers while still in progress. Henson Moore provided the example of advice on the budget and that currently the soonest the Committee can provide any input is for the 2010 budget.

Tom Dorr expressed his appreciation for the Committee comments. John Mizroch said that the Committee is very important and that Valri Lightner, Bill Hagy and others from the Departments can be communicated with as much as possible. Tom Dorr expressed that they will do as much as possible to make the Committee a more effective group.

Henson Moore opened the discussion up to the Committee for further comments or last questions. There were none.

XI. 2008 Committee Work Plan

Co-Chair Henson Moore stated that it is too late to provide guidance on the 2008 research direction, however, the Committee should think about providing direction for future years. Moore said that reports on funding awards should state what research area the money went to, not only who received it.

A topic for the first meeting of calendar year 2008 would be the Farm Bill and how it affects the Committee. Mr. Moore stated he would like a hard copy prior to the February meeting for discussions, if it were final. It was mentioned that Committee meeting time should be scheduled in for review of the Farm Bill.

Mark Maher and Henson Moore suggested having at each quarterly meeting an update on DOE and USDA activities in the four categories (feedstocks, processing and conversion, infrastructure, and end-use markets). Valri Lightner suggested that at the next meeting the Biomass Program technology leads could give their three year budget, lay out their strategy and key technical areas. Other Committee members suggested opening the presentation up to other programs at the Department of Energy such as the Vehicle Technologies Program. Valri Lightner expressed her concern that other programs in the Department might not have their work divided up in the same four areas and it may be difficult to split it up for explanation to the Committee. Henson Moore said that Valri Lightner and Bill Hagy should provide a baseline of the work being done to present to the Committee.

Committee members discussed shortening meeting times to only one day, however others opposed the idea given the time to travel and the limited number of meetings per year. Review of the Biomass R&D Board Action Plan will be on the agenda for the February 2008 meeting, however the Action Plan is not a public document yet.

The 2010 budget process begins in March 2008, however it is not be possible to share those plans publicly. The 2008 is public and Committee members could give comment on whether or not funding should be increased or decreased.

A field trip for the May 2008 meeting was suggested. Ideas on location should be sent to Valri Lightner or Bill Hagy. Rodney Williamson suggested Iowa and a tour of a dry mill ethanol plant.

XII. Public Comment

There was no public comment made at the November 2007 meeting of the Technical Advisory Committee.

Attachment A: Attendees

Committee Members Present

W. Henson Moore (co-chair)
David Anton
James Barber
Bill Berg
Thomas Binder
Ralph Cavalieri
Bob Dinneen
John Hickman
Lou Honary
Charles Kinoshita
Eric Larson

Mark Maher
Jim Martin
Scott Mason
Mary McBride
John McKenna
Jeffrey Serfass
Robert Sharp
J. Read Smith
Edwin White
Rodney Williamson

Committee Members Not Present

Thomas Ewing (co-chair)
Robert Ames
Butch Blazer
Scott Faber
Douglas Hawkins

E. Alan Kennett
Timothy Maker
Larry Pearce
Mitchell Peele

Biomass R&D Board Members Present

Tom Dorr (co-chair), USDA
John Mizroch, DOE (for Andy Karsner)
Donna Perla, EPA (for George Gray)

Federal Employees Present

Jacques Beaudry-Losique, DOE
Joe Dunn, USDA
Doug Faulkner, USDA

William Hagy III, USDA
Robert Hedberg, USDA

Other Attendees

Bruce Bauman, API
Dipka Bhambham, Platts
Don Erbach, ASABE
Amy Lilly, Honda

Patrick Mara, Cobolt Biofuels and ML
Strategies
Michelle Perez, EWG
Allison Trepid, SRI International
Jetta Wong, EESI

Total Public Attendees - 8

Total Attendees- 37

Designated Federal Officer – Valri Lightner

Attachment B: Agenda

Day 1: Westin Arlington Gateway

November 27, 2007

- 1:00 pm – 1:30 pm Welcome: Henson Moore
- 1:30 pm – 2:30 pm Welcome/Update: OBP/DOE – *Valri Lightner, Biomass Program, DOE*
- Biomass Program Activities
 - Strategy Planning
 - Peer Review
 - Solicitations
 - Report on the Six Integrated Biorefinery Projects
- 2:30 pm – 3:30 pm Welcome/Update: USDA – *Bill Hagy, Rural Development, USDA*
- Update on 2007 Joint Solicitation Projects/Peer Review
 - Agricultural Research Service (ARS) Biofuels Activities
 - Update on Farm Bill
- 3:30 pm – 4:15 pm Presentation: EPA – Green House Gas Rulemaking – *Karl Simon, Environmental Protection Agency*
- 4:15 pm – 4:30 pm *Break*
- 4:30 pm – 5:15 pm Presentation: Biobased Lubricants - *Lou Honary, University of Northern Iowa - National Ag-Based Lubricants (NABL) Center*
- 5:15 pm – 5:30 pm *Public Comment/Adjourn*

7:30 – 8:00 am	<i>Breakfast</i>
8:00 – 9:00 am	Discussion: Current State of the Industry
9:00 – 11:45 am	Discussion: Prepare for FY 2007 Recommendations to the Secretaries
11:45 – 12:30 pm	<i>Lunch (to be provided)</i>
12:30 – 1:15 pm	Presentation: Hydrogen Program Activities – <i>Mark Paster, Hydrogen Program, DOE</i>
1:15 – 1:45 pm	Discussion: Policy, Analysis, and Communications Subcommittees <i>Subcommittee Chairs</i>
1:45 – 2:00 pm	<i>Break</i>
2:00 – 3:00 pm	Meeting with Biomass R&D Board <ul style="list-style-type: none">○ Awards for departing Committee members○ Update on Board Activities and Biofuels Action Plan○ Discuss Recommendations to the Secretaries
3:00 – 3:45 pm	Discussion: Approve 2008 Committee Work Plan <ul style="list-style-type: none">○ Approve 2008 Quarterly Meeting Dates
3:45 – 4:00 pm	Public Comment
4:00 pm – 4:15 pm	<i>Closing Comments/Adjourn</i>

Attachment C: Meeting Presentations